PowerLOG ‘s XML Capabilities

5/7/2003

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U.S. Army Materiel Command

Purpose

- **To Provide an Understanding of**
  - **What powerLOG is**
  - **Why is was developed**
  - **Who is using it**
  - **How it can benefit the tech manual community**
  - **How you can access it**

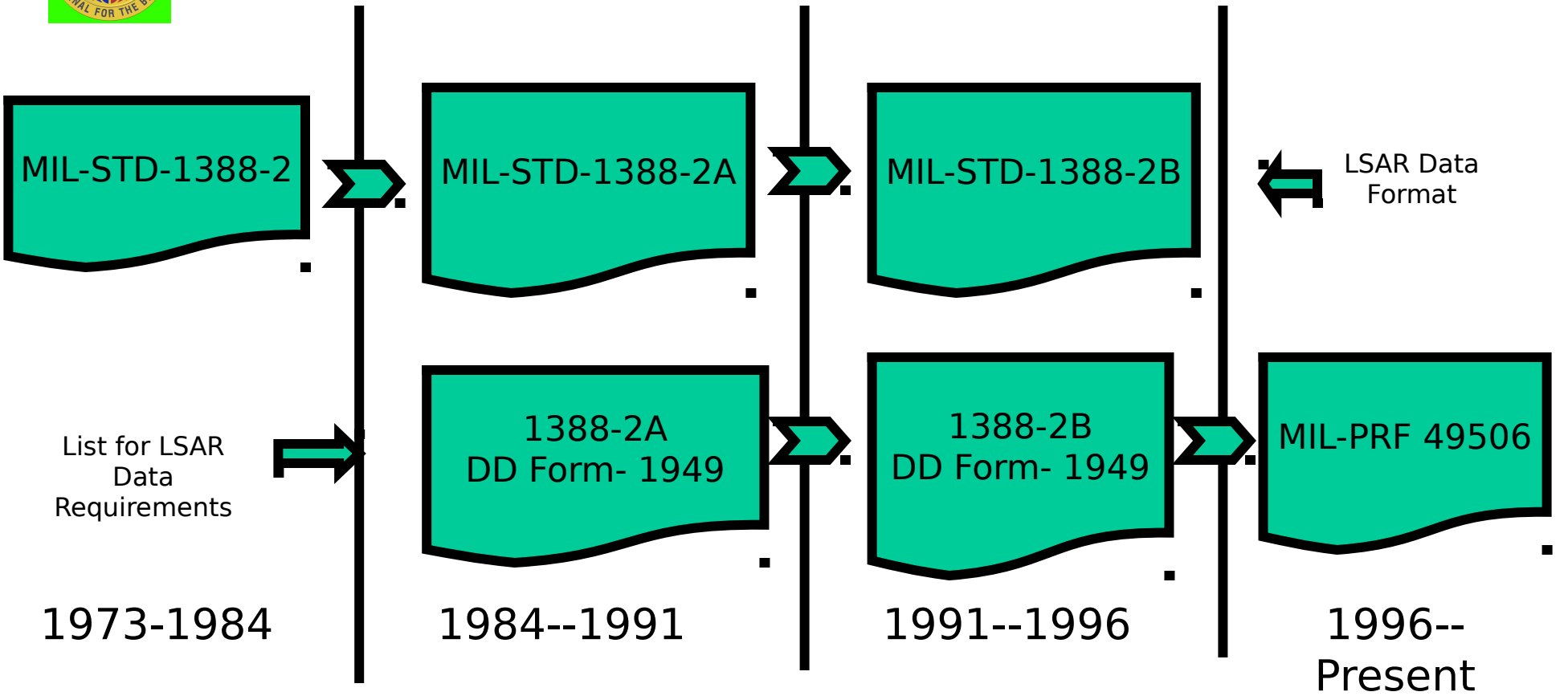
LSAR - Data Integration

- **Logistics Support Analysis (LSA) (MIL-STD-1388-1) was developed to insure logistics was designed into weapon systems when they were developed.**
- **LSA Record (LSAR) (1388-2B) provided a standard data format integrating the following:**
  - **Reliability, Availability, and Maintainability,**
  - **Support Equipment**
  - **Item Identification (Cataloging, CAGE/Ref #/NSN)**
  - **Part Application (Provisioning, PLISN)**
  - **Operations and Maintenance Requirements**
  - **Transportability**
  - **Personnel**
  - **Task Analysis**
  - **Unit Under Test**
  - **Facility**
  - **Packaging**

I thought the 1388 Docs went away?

- **MIL-STD-1388-1A and –2B were eliminated and replaced by a Logistics Management Information (LMI) performance specification (MIL-PRF 49506).**
- **Many programs started prior to 1996 and have MIL-STD-1388 requirements.**
- **While Logistics Management Information performance specification replaced the mechanism for getting the data (DD 1949), it did NOT provide data structure.**
- **Contractors continue to provide data via LSAR formats because they know the government can load the formats and they have sunk investment in LSAR systems.**
- **International interest is strong. (UK DEF-STAN-060)**

History of LSAR Data

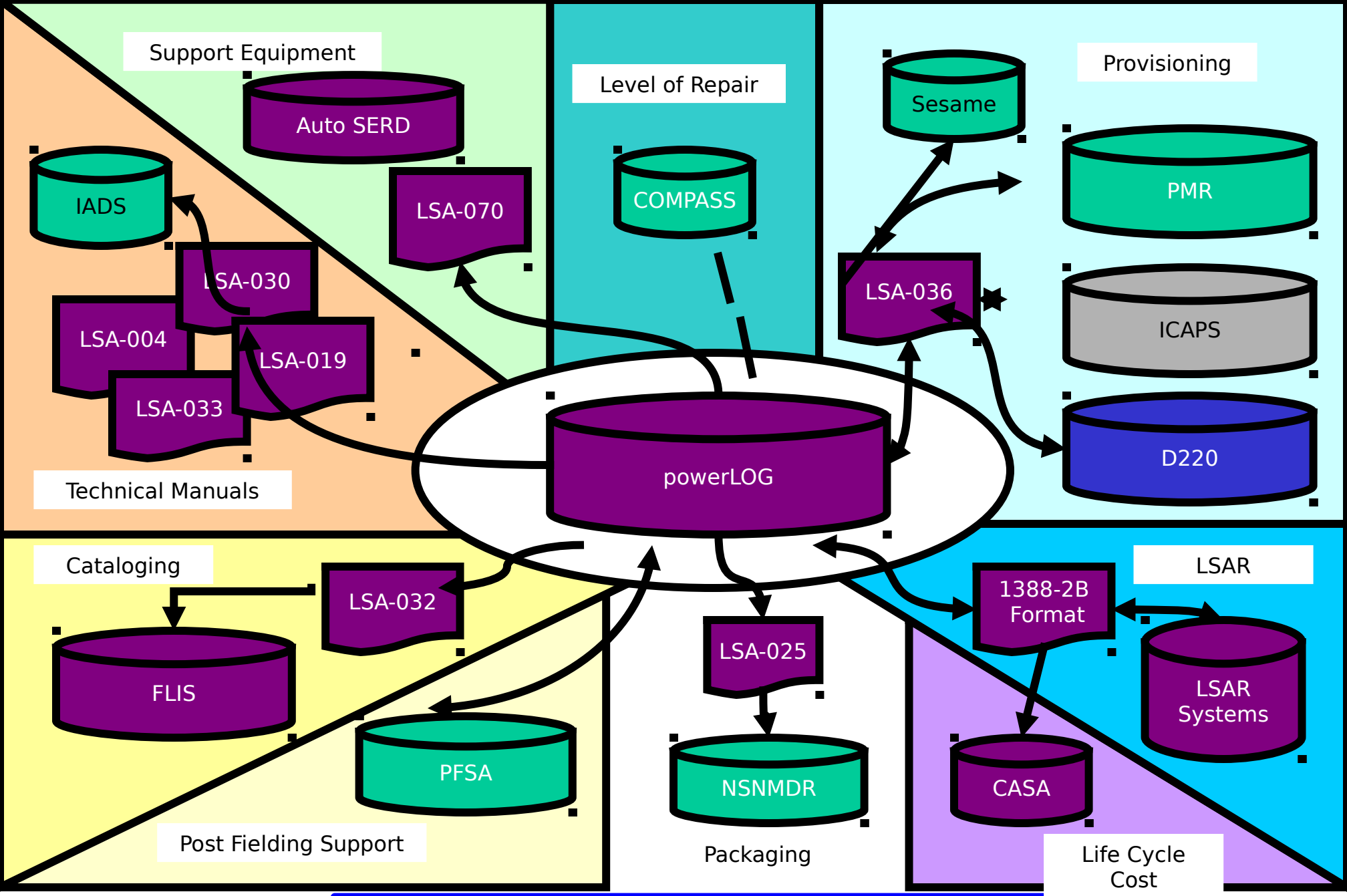


What do we recommend for the future?

- Development of Standard containing data elements and their definitions for all Integrated Logistics Support (ILS) elements. (In process for LMP)
- Development of document interchange formats ex. Extensible Markup Language (XML), and Document Type Definition (DTD) standards.
- Use this standard for data interchange between logistics systems.

Where does powerLOG fit in?

- **Integrates the data in MIL-STD-1338-2B Format**
- **Satisfies Logistics Management Information Requirements (LMI/LSAR).**
  - **Data Exchange:**
    - **Import: 2B Data, PMR (1552), 2A 036, 2B 036.**
    - **Export: 2B 036 report Feeding into the PMR.**
    - **Export: Integrated Logistics Management Information**
  - **Data reporting (Task Analysis, RPSTL, MAC, etc.)**
- **Eliminates many problems caused by data transfer/data acceptance due to lack of format standard.**


Support Equipment
Auto SERD
IADS
LSA-070
LSA-030
LSA-004
LSA-019
LSA-033
Technical Manuals
Level of Repair
COMPASS
Provisioning
Sesame
PMR
LSA-036
ICAPS
D220
powerLOG
Cataloging
LSA-032
FLIS
PFSA
Post Fielding Support
LSA-025
NSNMDR
Packaging
LSAR
1388-2B Format
LSAR Systems
CASA
Life Cycle Cost

Who is Using PowerLOG and Why?

- **Government**
  - **Program Management Offices and Other Government Agencies**
    - **Review Contractor Submittals (Edits, Reports, Ad Hoc Queries)**
    - **Send Data to Downstream Systems (PMR, IETM, FLIS, etc.)**
  - **Army Major Subordinate Commands and LMP**
    - **Data Cleansing on Provisioning Master Record Data**
  - **DLIS**
    - **Review LSA-036 Reports**
    - **Convert Data to Excel Format**
- **Contractors**
  - **Develop an Integrated Logistics Database**
  - **Provide Integrated Logistics Support (ILS) /LSA /LMI Contract Deliverables**

User Survey Results

- **297 people responded from more than 90 different organizations**
- **Submissions almost exactly 50/50 between gov and contractor**

CSC
Raytheon
AMCOM
CECOM
NASA
PMs
TACOM
SBCOM
Marines
Boeing
Lockheed Martin
Bell Helicopter
United Defense
Naval Aviation Depot
GE Aircraft Engines
Northrop Grumman
Naval Surface Warfare Cente
And many more!!!
General Dynamics

PowerLOG Benefits- Contractors

- Saved dollars in having s/w to do LSAR or LMI work. Convenient.
- Standard approach for data entry and communicating results
- Saved manpower.
- Provided the ability to read 1388 master files and create task summary reports.
- Improved screening for import errors.
- It greatly reduces repetitive data entry and does a lot of assignments/calculations.
- Helped to double check and verify errors in data created by other applications.
- It provides a quick, easy to view LSAR data generated by other applications.
- Providing 1388-2B data to our government customer at lower cost per man/hour.

PowerLOG Benefits- Contractors

- Saved dollars and manpower..
- Saves time and money in developing LMI material for programs.
- Data quality, quality data analysis.
- User friendly and requires little training.
- Improved efficiency.
- PowerLOG being very similar to the Navy I-CAPS (but with a greater impact) is used to help us keep the Coast Guard supply Support and Provisioning system on the leading edge.
- Saved us from having to spend the money on a commercial equivalent. Additionally, the PowerLOG staff are experienced and helpful.
- It has identified errors in our LSA data.
- Ease of documenting data.

PowerLOG Benefits- Government

- Improved data quality.
- Easier and faster provisioning/Technical Manual (TM) development
- The many edits have resulted in better data quality lower cost of powerLOG compared with commercial software and has produced cost savings.
- It saves time on projects.
- Improved data retention
- Helps in making correct maintenance decisions.
- Builds reports that are user friendly.
- Replaces legacy software.

PowerLOG Benefits- Government

- **Ability to receive raw LSA data from contractors and create usable reports rather than have contractors generate reports each time that you need them. This saves time and money by not having to rely on contractors to deliver reports (especially if they are out of contract scope)**
- **Simpler system for LSA builds.**
- **Allowed the contractor to deliver provisioning data in proper format that we could accept.**
- **PowerLOG lets us reformat the LSAR-036 into an understandable test file.**
- **Fast Easy process. Fast data extraction and reports**
- **Data cleansing - data editing - statistical scans - etc**

PowerLOG Versions

- **Windows Version**
  - **powerLOG 2000**
    - **Current Release 2.6.4**
    - **Available on LOGSA web site www.logsa.army.mil/alc/powerlog**
    - **Free to government agencies and their contractors!**

- **Java Version**
  - **Limited Alpha release (on going)**
  - **Beta Release planed for July 03**

powerLOG-J

- **Features in new system not found in Windows version:**
  - **Multi-user collaboration**
  - **Database Independent – JDBC Compliant**
  - **Operating System (OS) Independent - Works on any OS running a Java Virtual Machine**
  - **Additional configuration capabilities**
  - **All reports and exporters have both XML and HTML outputs (and PDF in the near future).**
  - **MIL-STD-40051 (Technical Publication) compliant outputs.**

powerLOG J Status

What we have done:

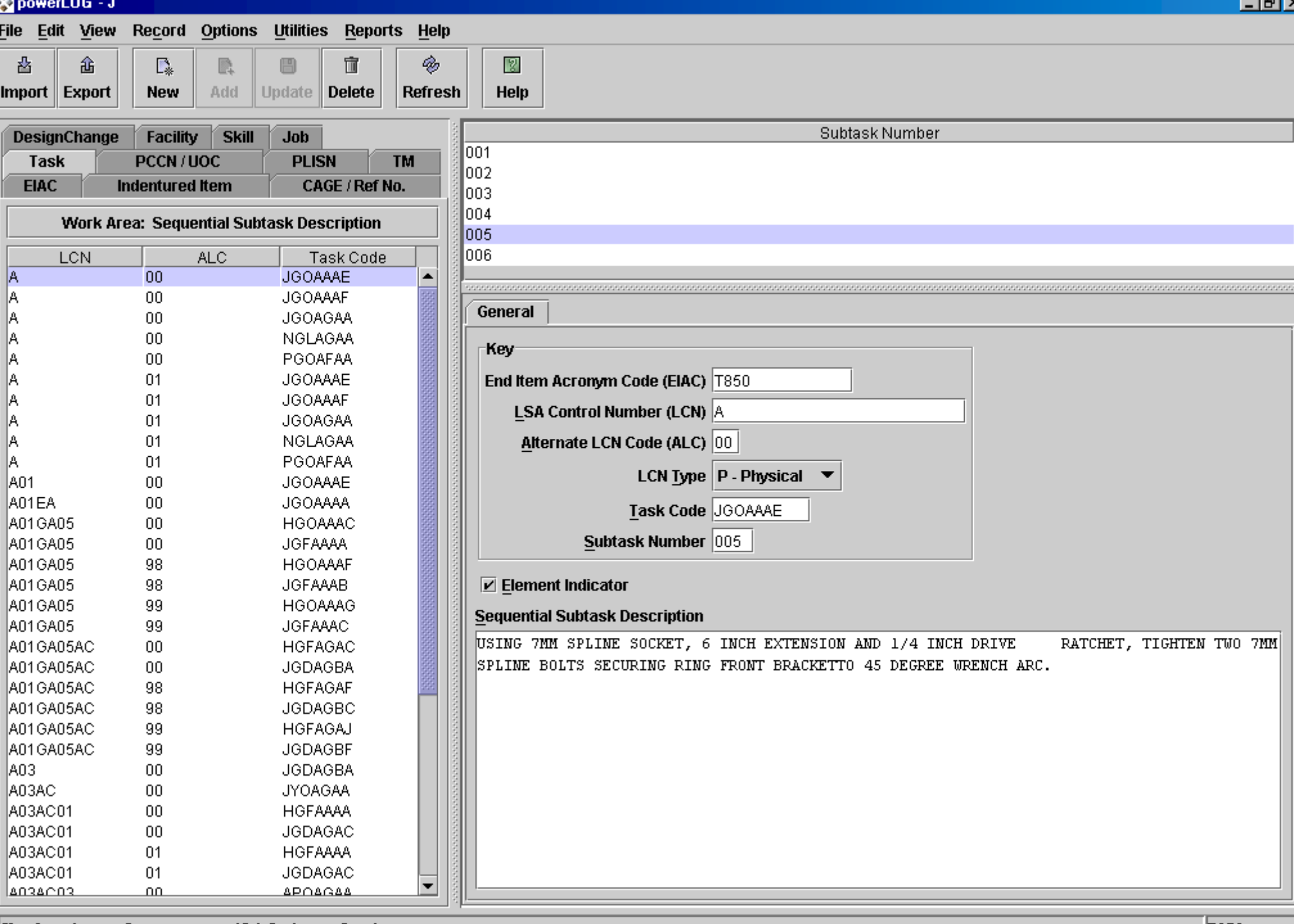
- Database Schema in ER-Win
- Legacy Data Import (LSA-036 MIL-STD-1552, 1388-2B)
- Army Edits
- Graphical User Interface
- Reports:
  - Task Analysis
  - Repair Parts and Special Tools List (RPSTL)
  - Maintenance Allocation Chart
  - Provisioning Technical Doc.
- Admin Utility
- Help System
- Training

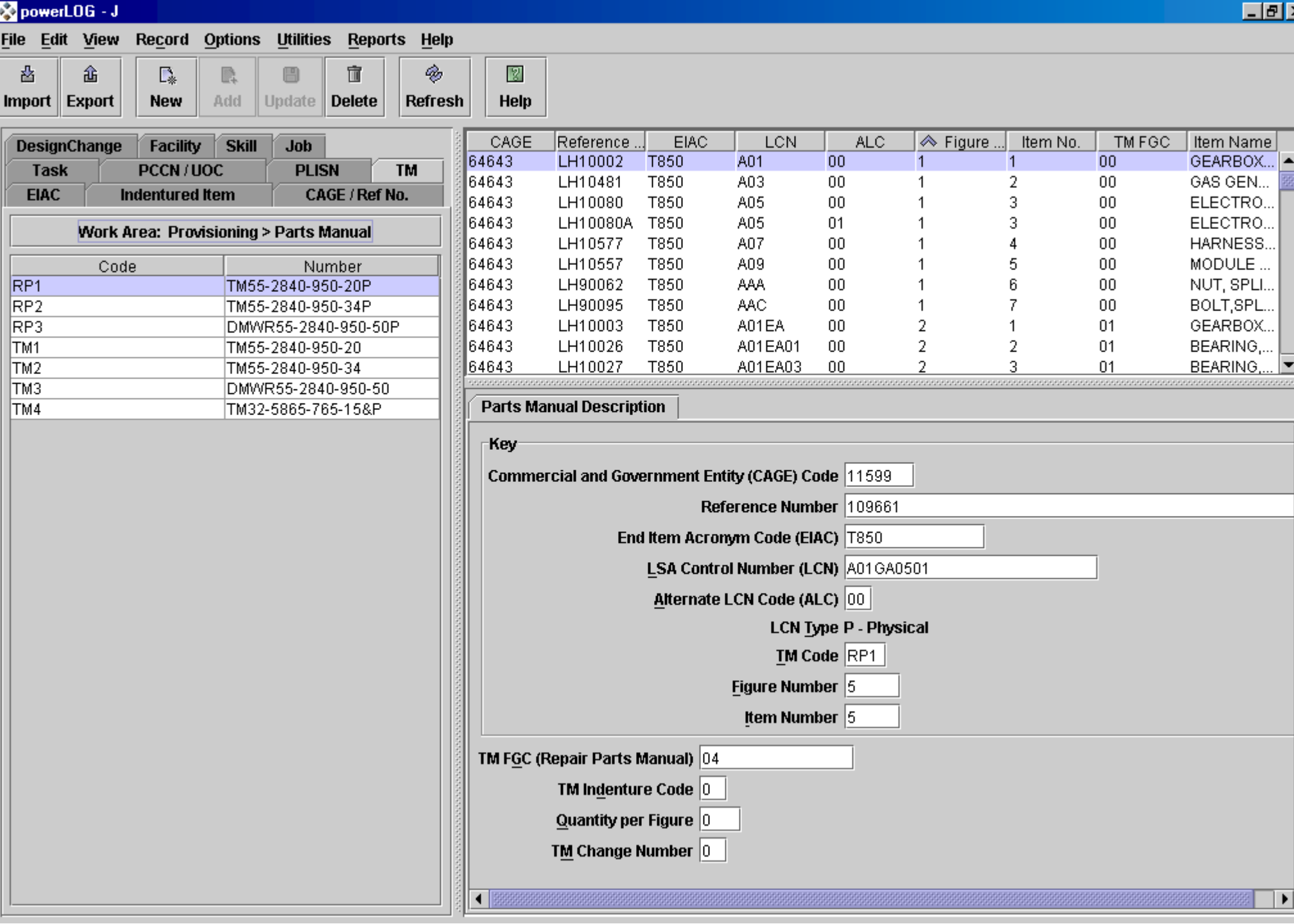
What we plan to do:

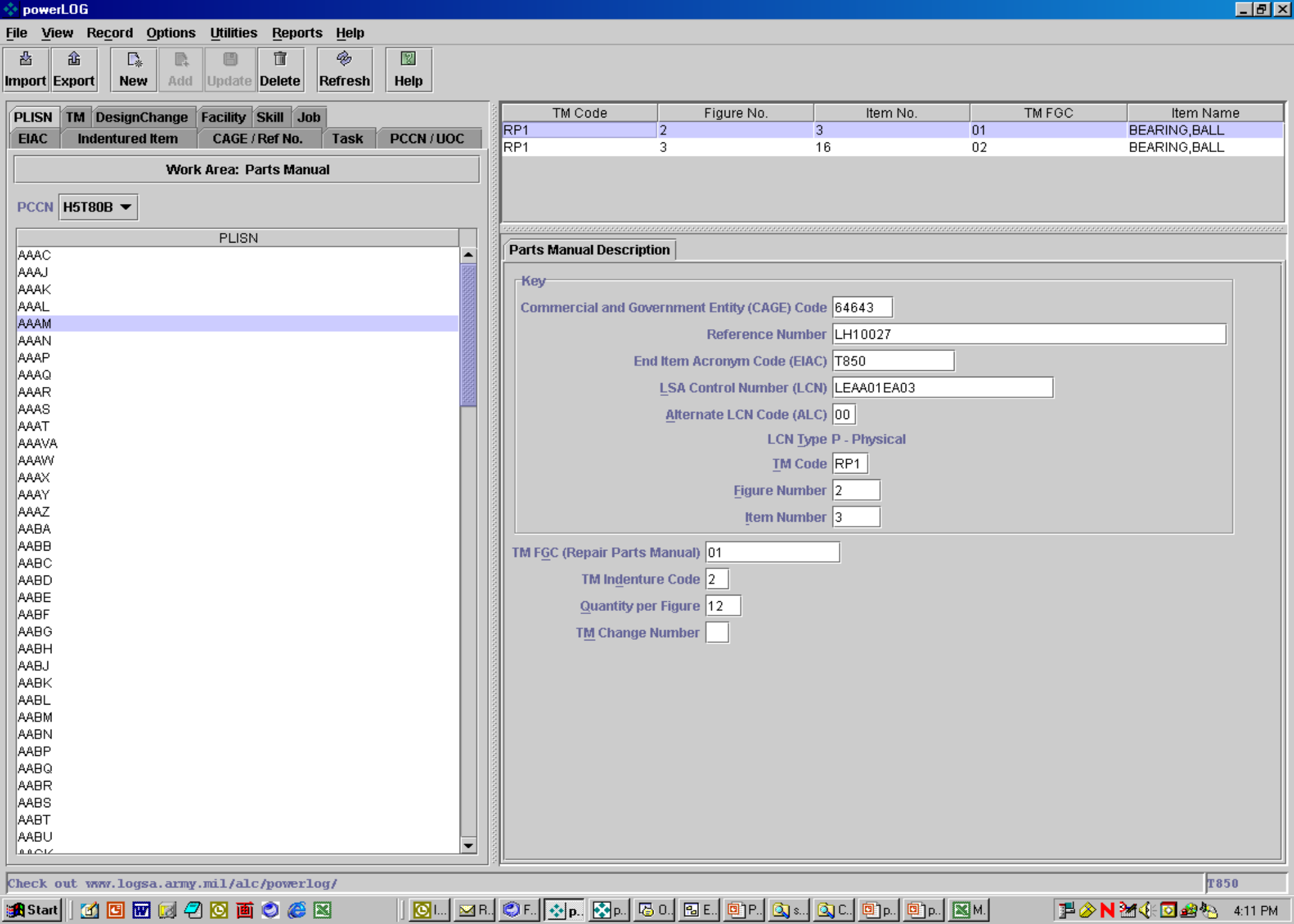
- LMP interface
- PDF Outputs on all reports
- Data View Query and Print
- 2361 Transformation
- MIL-STD-1388-2A Importer

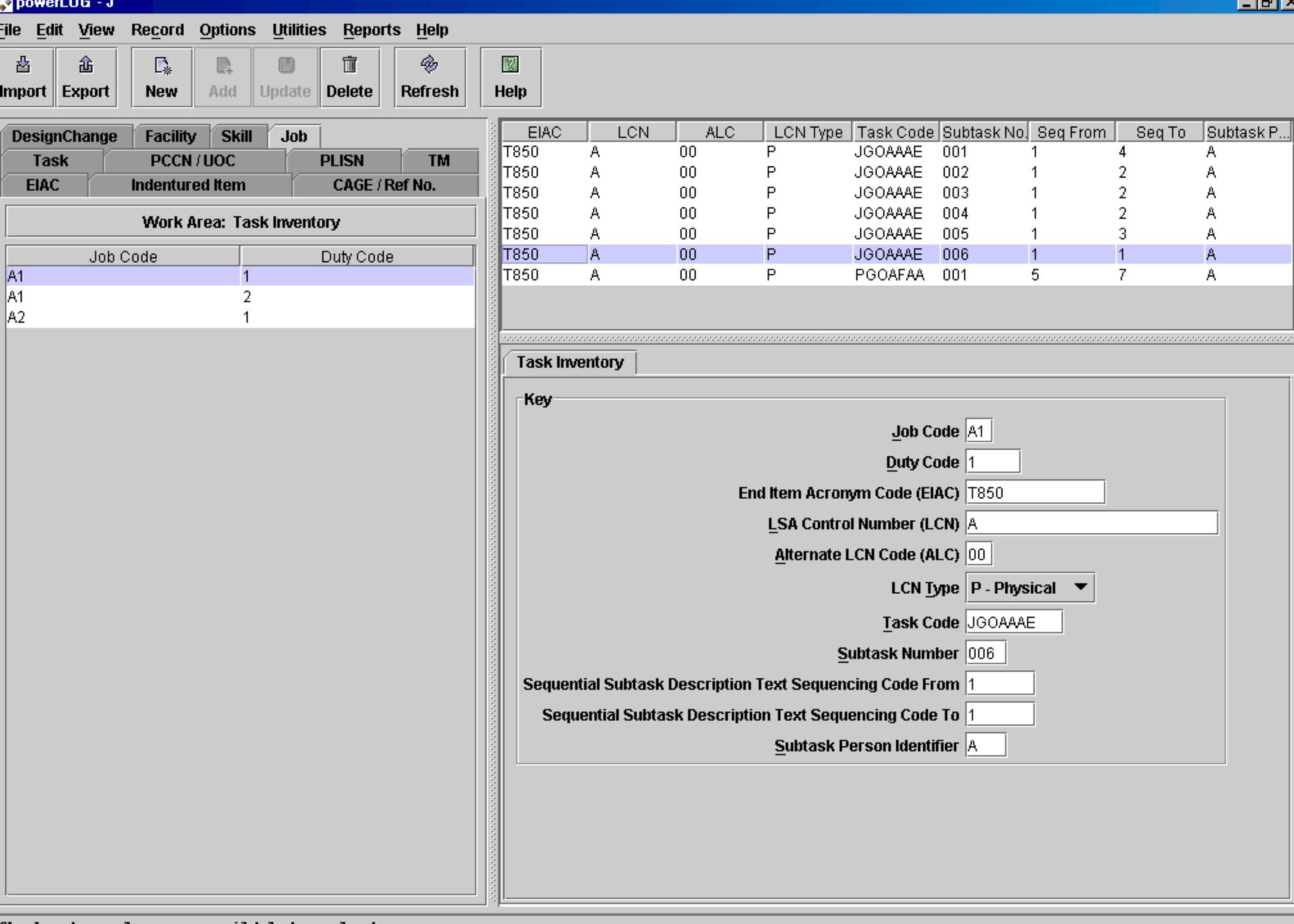
powerLOG User Interface

- The user interface is broken into four main areas
  - Menu Bar
  - Data View
  - Data Summary
  - Work Area


powerLOG - J
File Edit View Record Options Utilities Reports Help
Import Export New Add Update Delete Refresh Help
DesignChange Facility Skill Job
Task PCCN / UOC PLISN TM
EIAC Indentured Item CAGE / Ref No.
Work Area: Sequential Subtask Description
LCN ALC Task Code
A 00 JGOAAAE
A 00 JGOAAAF
A 00 JGOAGAA
A 00 NGLAGAA
A 00 PGOAFAA
A 01 JGOAAAE
A 01 JGOAAAF
A 01 JGOAGAA
A 01 NGLAGAA
A 01 PGOAFAA
A01 00 JGOAAAE
A01EA 00 JGOAAAA
A01GA05 00 HGOAAAC
A01GA05 00 JGFAAAA
A01GA05 98 HGOAAAF
A01GA05 98 JGFAAAB
A01GA05 99 HGOAAAG
A01GA05 99 JGFAAAC
A01GA05AC 00 HGFAGAC
A01GA05AC 00 JGDAGBA
A01GA05AC 98 HGFAGAF
A01GA05AC 98 JGDAGBC
A01GA05AC 99 HGFAGAJ
A01GA05AC 99 JGDAGBF
A03 00 JGDAGBA
A03AC 00 JYOAGAA
A03AC01 00 HGFAAAA
A03AC01 00 JGDAGAC
A03AC01 01 HGFAAAA
A03AC01 01 JGDAGAC
Subtask Number
001
002
003
004
005
006
General
Key
End Item Acronym Code (EIAC) T850
LSA Control Number (LCN) A
Alternate LCN Code (ALC) 00
LCN Type P - Physical
Task Code JGOAAAE
Subtask Number 005
Element Indicator
Sequential Subtask Description
USING 7MM SPLINE SOCKET, 6 INCH EXTENSION AND 1/4 INCH DRIVE RATCHET, TIGHTEN TWO 7MM SPLINE BOLTS SECURING RING FRONT BRACKETTO 45 DEGREE WRENCH ARC.


powerLOG - J
File Edit View Record Options Utilities Reports Help
Import Export New Add Update Delete Refresh Help
DesignChange Facility Skill Job
Task PCCN / UOC PLISN TM
EIAC Indentured Item CAGE / Ref No.
Work Area: Provisioning > Parts Manual
Code Number
RP1 TM55-2840-950-20P
RP2 TM55-2840-950-34P
RP3 DMWR55-2840-950-50P
TM1 TM55-2840-950-20
TM2 TM55-2840-950-34
TM3 DMWR55-2840-950-50
TM4 TM32-5865-765-15&P
CAGE Reference ... EIAC LCN ALC Figure ... Item No. TM FGC Item Name
64643 LH10002 T850 A01 00 1 1 00 GEARBOX...
64643 LH10481 T850 A03 00 1 2 00 GAS GEN...
64643 LH10080 T850 A05 00 1 3 00 ELECTRO...
64643 LH10080A T850 A05 01 1 3 00 ELECTRO...
64643 LH10577 T850 A07 00 1 4 00 HARNESS...
64643 LH10557 T850 A09 00 1 5 00 MODULE ...
64643 LH90062 T850 AAA 00 1 6 00 NUT, SPLI...
64643 LH90095 T850 AAC 00 1 7 00 BOLT,SPL...
64643 LH10003 T850 A01EA 00 2 1 01 GEARBOX...
64643 LH10026 T850 A01EA01 00 2 2 01 BEARING,...
64643 LH10027 T850 A01EA03 00 2 3 01 BEARING,...
Parts Manual Description
Key
Commercial and Government Entity (CAGE) Code 11599
Reference Number 109661
End Item Acronym Code (EIAC) T850
LSA Control Number (LCN) A01GA0501
Alternate LCN Code (ALC) 00
LCN Type P - Physical
TM Code RP1
Figure Number 5
Item Number 5
TM FGC (Repair Parts Manual) 04
TM Indenture Code 0
Quantity per Figure 0
TM Change Number 0


powerLOG
File View Record Options Utilities Reports Help
Import Export New Add Update Delete Refresh Help
PLISN TM DesignChange Facility Skill Job
EIAC Indentured Item CAGE / Ref No. Task PCCN / UOC
Work Area: Parts Manual
PCCN H5T80B
PLISN
AAAC AAAJ AAAK AAAL AAAM AAAN AAAP AAAQ AAAR AAAS AAAT AAAVA AAAW AAAX AAAY AAAZ AABA AABB AABC AABD AABE AABF AABG AABH AABJ AABK AABL AABM AABN AABP AABQ AABR AABS AABT AABU
TM Code | Figure No. | Item No. | TM FGC | Item Name
RP1 | 2 | 3 | 01 | BEARING,BALL
RP1 | 3 | 16 | 02 | BEARING,BALL
Parts Manual Description
Key
Commercial and Government Entity (CAGE) Code 64643
Reference Number LH10027
End Item Acronym Code (EIAC) T850
LSA Control Number (LCN) LEAA01EA03
Alternate LCN Code (ALC) 00
LCN Type P - Physical
TM Code RP1
Figure Number 2
Item Number 3
TM FGC (Repair Parts Manual) 01
TM Indenture Code 2
Quantity per Figure 12
TM Change Number
Check out www.logsa.army.mil/alc/powerlog/
T850
Start
4:11 PM


powerLOG - J
File Edit View Record Options Utilities Reports Help
Import Export New Add Update Delete Refresh Help
DesignChange Facility Skill Job
Task PCCN / UOC PLISN TM
EIAC Indentured Item CAGE / Ref No.
Work Area: Task Inventory
Job Code Duty Code
A1 1
A1 2
A2 1
EIAC LCN ALC LCN Type Task Code Subtask No. Seq From Seq To Subtask P...
T850 A 00 P JGOAAAE 001 1 4 A
T850 A 00 P JGOAAAE 002 1 2 A
T850 A 00 P JGOAAAE 003 1 2 A
T850 A 00 P JGOAAAE 004 1 2 A
T850 A 00 P JGOAAAE 005 1 3 A
T850 A 00 P JGOAAAE 006 1 1 A
T850 A 00 P PGOAFAA 001 5 7 A
Task Inventory
Key
Job Code A1
Duty Code 1
End Item Acronym Code (EIAC) T850
LSA Control Number (LCN) A
Alternate LCN Code (ALC) 00
LCN Type P - Physical
Task Code JGOAAAE
Subtask Number 006
Sequential Subtask Description Text Sequencing Code From 1
Sequential Subtask Description Text Sequencing Code To 1
Subtask Person Identifier A

Reporting

- *Maintenance Allocation Chart (LSA-019)
- *Repair Parts and Special Tools List (LSA-030)
- *Provisioning Technical Documentation (LSA-036)
- *Authorization List Item Summary (LSA-040)
- *Preventive Maintenance Checks and Services (LSA-033)
- Bill of Materials (LSA-080)
- And more!!!

* MIL-STD-40051 Compliant Format

LCN	ALC	REFERENCE NUMBER	CAGE	ITEM NAME	TM FUNCT GROUP CODE
A	00	LH10001	64643	ENGINE ASSEMBLY	00

TASK CODE	TASK IDENTIFICATION	HCP	HMCP	TASK FREQ	MB	ELAP TIME	MANUALLY MEASURED ELAPSED TIME
JGOAAAE	R/R FRT OIL TANK MT BRACKET ASSY	Y		0.0010	H	0.00 (M)	

SUBTASK NUMBER	TEXT SEQUENCE CODE	SEQUENTIAL TASK NARRATIVE	WORK AREA	PERS ID	MEAN MAN MINUTE	MEAN MINUTE ELAP TIME
001	1	USING 7MM SPLINE SOCKET, 6 INCH EXTENSION AND 1/4 INCH DRIVE		A	0.6	0.6
	2	RATCHET, REMOVE TWO SPLINE BOLTS SECURING FRONT OIL TANK BRACKET		A		
	3	ASSY TO FRONT FRAME ASSY.		A		
	4	SET BOLTS ASIDE FOR REUSE.		A		
002	1	SWING BRACKET DOWN AND MOVE FORWARD OFF OIL TANK ALIGNMENT PIN.		A	0.1	0.1
	2	DISCARD DAMAGED BRACKET.		A		
003	1	INSTALLATION: SLIP MOUNT BRACKET ONTO OIL TANK ALIGNMENT PIN		A	0.1	0.1
	2	AND SWING BRACKET UP TO FRAME ASSEMBLY.		A		
004	1	ALIGN FRONT BRACKET TO FRONT FRAME ASSY, INSTALL AND FINGER		A	0.3	0.3
	2	TIGHTEN TWO 7MM SPLINE BOLTS.		A		
005	1	USING 7MM SPLINE SOCKET, 6 INCH EXTENSION AND 1/4 INCH DRIVE		A	0.4	0.4
	2	RATCHET, TIGHTEN TWO 7MM SPLINE BOLTS SECURING RING FRONT BRACKET		A		
	3	TO 45 DEGREE WRENCH ARC.		A		
006	1	PERFORM A TECHNICAL INSPECTION TO ENSURE COMPLETION OF THE TASK.		A	0.1	0.1

SSC	SS EVAL	PERSON ID	LSAR MAN-HOURS	MANUALLY MEASURED MAN-HOURS
58A		A	0.03	

SUPPORT/TEST EQUIPMENT AND TOOLS

ICC	ITEM NAME	REFERENCE NUMBER	CAGE	QTY/TASK	ACTUAL QUANTITY USED	MANUAL EVALUATION
4	EXT,SKT WR, 1/4X6	TMX60	81343	1.00		
4	HANDLE, RATCH 1/4 D	TM70B	81343	1.00		

D:\Working\JavaDevelopment\powerLOGJ\lsar019.xml - Microsoft Internet Explorer provided by LOGSA

Back Search Favorites History

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Address D:\Working\JavaDevelopment\powerLOGJ\lsar019.xml Go

Links IETM Stuff cihandbook JDBC - Webopedia.com WLMP To-Be BusinessProcessModel MIL-PRF-49506 PERFORMANCE SPECIFICATION [SUMMARY.] Logistics Management Information

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  - <report_bodyrow_column_names>
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      <TEXT_SEQ_CODE_COLUMN_NAME>TEXT SEQUENCE CODE</TEXT_SEQ_CODE_COLUMN_NAME>
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      <MINUTE_ELAP_COLUMN_NAME>MEAN MINUTE ELAP TIME</MINUTE_ELAP_COLUMN_NAME>
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        <subtask />
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Done My Computer

Start In... R... Fo... po... M... po... Ou... Ex... Re... Po... D... 2:34 PM

LSAR-030 Indentured Parts List Report Summary - Microsoft Internet Explorer provided by LOGSA

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Links Department of Command, Leadership, and Management Army CHAPTER8 AL&T Commercial Item Handbook DOD Acquisition Maditory Course Fullfillment Program

7	PADZZ	5120-01-442-8759	96906	MS3368-1-98.1991/003	STRAP,TIEDOWN,ELECT UOC: CE1	0001

Group
02

Item Number	SMR Code	National Stock Number	Cage Code	Part Number	Description and Usable On Code (UOC)	Quantity
1	PAOZZ	5120-01-442-8759	96906	MS3368-1-98.1991/003	STRAP,TIEDOWN,ELECT UOC: CD2	0001
2	PAOZZ	- - -	64547	2122050-A01	SCHEMATIC UOC: CD2	0001
3	PAOZZ	- - -	64547	S9051-22	INSULATION SLEEVING UOC: CD2	0001
4	PAOZZ	5520-01-722-3983	64547	M55302/62L-A54S	CONNECTOR UOC: CD2	0001
5	PAOZZ	5865-01-898-7735	64547	M55302/63L-A60S	CONNECTOR UOC: CD2	0001
6	PAOZZ	5865-01-676-5548	64547	944454A	FLEX CIRCUIT (HCI) UOC: CD2	0001
7	PAOZZ	6705-00-676-5437	64547	S9597M5Y	LABEL,CAUTION UOC: CD2	0001

Special Tools List

Cross Reference Indexes

Part Number Index		
Part Number	Figure Number	Item Number
2118539	1	1

D:\Working\JavaDevelopment\powerLOGJ\lsar030.xml - Microsoft Internet Explorer provided by LOGSA

Back Search Favorites History

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  - <repair_parts_bodyrow>
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```


Done My Computer

Start 2:50 PM

CCSS File Conversion/RPSTL Demo

- Take CCSS PMR File
- Convert into powerLOG tables
- Run RPSTL

Contact and Download Info

- **Louis Sciaroni,**
  - **LOGSA**
  - **(256) 955-9866, DSN 645-9866**
  - **louis.sciaroni@us.army.mil**

Backup Slides

Data Interchange – Options